

Title (en)

Method for determining phase-corrected amplitudes in NMR relaxometric imaging

Title (de)

Verfahren zur Bestimmung phasenkorrigierter Amplituden in der relaxometrischen NMR-Bildgebung

Title (fr)

Procédé pour la détermination d'amplitudes corrigées de phase dans une expérience de relaxométrie de type d'imagerie RMN

Publication

**EP 1972957 A1 20080924 (EN)**

Application

**EP 07290353 A 20070323**

Priority

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Abstract (en)

Accurate determinations of the NMR spin-spin relaxation parameters provided by multiple echoes imaging experiments (MSME) require first of all phase corrected amplitudes to deal with. The invention relates to a simple and robust algorithm for the phase correction procedure, to be applied following FFT reconstruction and prior to any fitting decay method. The algorithm is a pixel-by-pixel algorithm comprising the steps of determining a linear fit from complex amplitude values, defining a rotation angle with respect to the real axis, optimizing the angle, and applying a rotation to the amplitudes of the considered pixel through all echo images. The algorithm provides phase corrected amplitudes for real-phased images, allowing correct image algebra and measurements for T2 constants from any specific ROI on the image.

IPC 8 full level

**G01R 33/50** (2006.01)

CPC (source: EP US)

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Citation (search report)

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- [AD] VAN DER WEERD L ET AL: "Evaluation of algorithms for analysis of NMR relaxation decay curves", MAGNETIC RESONANCE IMAGING ELSEVIER USA, vol. 18, no. 9, November 2000 (2000-11-01), pages 1151 - 1157, XP002448420, ISSN: 0730-725X
- [A] PERMAN W H ET AL: "Methodology of in vivo human sodium MR imaging at 1.5 T.", RADIOLOGY SEP 1986, vol. 160, no. 3, September 1986 (1986-09-01), pages 811 - 820, XP002448421, ISSN: 0033-8419

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DOCDB simple family (publication)

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